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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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YOUNG & THOMPSON
745 SOUTH 23RD STREET 2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,316

Applicant(s)

MASETTI, SIMONE

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 7, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23 - 24, 26 - 27, 29 - 41 and 44 - 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23 - 24, 26 - 27, 29 - 41 and 44 - 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed May 7, 2004, have been entered and have been carefully considered. Claims 23 – 24, 26 – 27, 29 – 41 and 44 – 45 are amended, claims 1 – 22, 25, 28 and 42 – 43 are cancelled and claims 23 – 24, 26 – 27, 29 – 41 and 44 – 45 are pending. In view of Applicant's Amendments, the Examiner withdraws all previously set forth rejections as detailed in paragraphs 3 – 7 of the previous Office Action dated January 1, 2004. Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claim 23 – 24, 26, 29 – 38, 41 and 44 - 45 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Childs et al. (US 6,357,137).

Childs is directed to a non-woven fabric for imparting fabric treatment to clothing (Title).

As to claims 23, 26 and 44, Childs teaches a nonwoven fabric, preferably made of polyester, comprising fibers having at least two different deniers that differ in denier by at least about 2 (column 1, lines 33 – 40). Childs teaches that at least one fiber has a denier equal to or below about 8 and the other fiber having a denier of at least about 8

(column 1, lines 37 – 43). Therefore, in one embodiment, one fiber can have a denier of 1 and the other fiber has a denier of 8 or higher (column 1, lines 37 – 43), resulting in a ratio of 8:1 or higher. Childs teaches that the fibers in the nonwoven fabric can be bonded by means of hydroentanglement (column 3, lines 45 – 50). Childs teaches when making the multi-denier substrate, the filaments, each of which typically forms one layer, are applied in separate stages (column 3, lines 18 – 24). For example, Childs teaches applying 25% by weight of 6 denier fiber followed by 25% by weight of 12 denier fiber, 25% by weight of 12 denier fiber, and finally 25% by weight of 6 denier fiber, creating a “sandwich” of 6/12/12/6 denier fibers as the substrate (column 3, lines 18 – 25). Therefore, the two surface layers are 100% of the lower denier fiber, meeting the requirements of at least 3% of the surface as required by claim 23 and at least 50% of the surface as required by claim 26. It has been held that the recitation “adapted for dry-cleaning of a surface and having a capacity to develop an electrostatic charge during use” is an “adapted to” type limitation. It has been held that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As to claim 29, Childs teaches that the fibers can comprise nylon or polyester (column 1, lines 33 – 40). It is known in the art that nylon is a polyamide.

As to claim 23, 41, 44 and 45, although Childs does not explicitly teach the claimed electrostatic charge is imparted to the plural fibers when one of the plural fibers rubs against another one of the plural fibers having a different denier as required by

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claims 23 and 44, electrostatic charge varies from 1.22 to 3.23 volt as required by claim 41, the electrostatic charge is at least 1 Volt as required by claim 23, and the finest of the plural fibers vibrate when the plural finest fibers rub inside the interspaces remaining empty between largest ones of the plural fibers to develop the electrostatic charge as required by claim 45, it is reasonable to presume that an electrostatic charge is imparted to the plural fibers when one of the plural fibers rubs against another one of the plural fibers having a different denier as required by claims 23 and 44, electrostatic charge varies from 1.22 to 3.23 volt as required by claim 41, the electrostatic charge is at least 1 Volt and the finest of the plural fibers vibrate when the plural finest fibers rub inside the interspaces remaining empty between largest ones of the plural fibers to develop the electrostatic charge as required by claim 45 is inherent to Childs. Support for said presumption is found in the use of like materials (i.e. a nonwoven fabric comprising polyester or polyamide fibers made by a hydroentanglement process comprising fibers of at least 2 different deniers with a denier ratio from 7:1 to 11:1) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of an electrostatic charge is imparted to the plural fibers when one of the plural fibers rubs against another one of the plural fibers having a different denier as required by claims 23 and 44, the electrostatic charge is at least 1 Volt as required by claim 23, electrostatic charge varies from 1.22 to 3.23 volt as required by claim 41, and the finest of the plural fibers vibrate when the plural finest fibers rub inside the interspaces remaining empty between largest ones of the plural fibers to develop the electrostatic charge as required by claim 45 would obviously

have been present once the Childs product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claims 24, 27 and 30 – 37, Childs discloses the claimed invention except for a material is a mixture of said largest one of said plural fibers from 1 to 1.5 denier and finest one of said plural fibers with a fineness below 0.5 denier as required by claim 24; a density of the material is about 0.6 g/cm³ as required by claim 27; a composition of 90% of 1.5 denier, as required by claim 30, or 1 denier, as required by claim 31, polyester fibers, and 10% of 0.14 denier polyester fibers as required by claims 30 and 31; a composition of 80% of 1.5 denier, as required by claim 32, or 1 denier, as required by claim 33, polyester fibers, and 20% of 0.14 denier polyester fibers as required by claims 32 and 33; a composition of 70% of 1 denier polyester fibers and 30% of 0.14 denier polyester fibers as required by claim 34; a composition of 50% of 1 denier and 50% of 0.14 denier polyester fibers as required by claim 35; a composition of 50% of 1.5 denier, 30% of 1 denier and 20% of 0.14 denier as required by claim 36 and a composition of 50% of 1.5 denier, 30% of 0.8 denier and 20% of 0.14 denier as required by claim 37. It should be noted that the percentage composition of the different plural fibers and density of the material are result effective variables. Additionally, it should be noted that the denier of the largest and smallest denier fibers are result effective variables. As the composition comprises a higher percentage of finer denier fibers, the material becomes more flexible, porous and lightweight. As the density increases, the capacity to acquire electrostatic charge decreases. For example, as the denier of the largest and smallest fibers and the size ratio of the fibers directly affects the size of the electrostatic charge

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produced by the fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a material as described above, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the denier, proportions of fibers and the density used in order to have a flexible and lightweight with optimized electrostatic capacity.

As to claim 38, the limitations are not given any patentable weight because they are process limitations which do not have any impact on the characteristics of the final product.

4. Claims 23, 39 and 40 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pereira et al. (US 6,001,751).

Pereira is directed to a nonwoven fabric of multi-length and multi-denier fibers and absorbent articles formed therefrom (Title).

As to claim 23, Pereira teaches a nonwoven fabric formed by a mixture of fibers having more than one denier with the fibers having a denier between 1 and 10 (column 3, lines 1 – 10). Therefore, in one embodiment, one fiber can have a denier of 10 and the other fiber can have a denier of 1 (column 3, lines 1 – 12), resulting in a ratio of 10:1. Pereira teaches that the all fibers having a single denier represent from 10 – 90% of the total amount of fibers of the mixture of fibers of the invention (column 3, lines 5 – 12); therefore, the finer fibers would be present in the amount of 10 – 90% of the fabric

meeting Applicant's requirement of at least 3% of the surface of the material is formed by fibers with finer deniers or counts. Pereira teaches that suitable fibers include staple synthetic fibers such as acrylic, nylon (polyamide), polyester and polypropylene (column 3, lines 55 – 60). Pereira teaches that the nonwoven fabric may be formed by conventional process such as by spunlacing (column 4, lines 60 – 67). It has been held that the recitation “adapted for dry-cleaning of a surface and having a capacity to develop an electrostatic charge during use” is an “adapted to” type limitation. It has been held that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As to claim 39, Pereira teaches the use of other layers in combination with the nonwoven material (column 5, lines 44 – 50).

As to claim 40, Pereira teaches the use of bi-component fibers in the nonwoven (column 3, lines 60 – 67).

As to claim 23, although Pereira does not explicitly teach the claimed electrostatic charge is imparted to the plural fibers when one of the plural fibers rubs against another one of the plural fibers having a different denier and the electrostatic charge is at least 1 Volt, it is reasonable to presume that an electrostatic charge is imparted to the plural fibers when one of the plural fibers rubs against another one of the plural fibers having a different denier and the electrostatic charge is at least 1 Volt is inherent to Pereira. Support for said presumption is found in the use of like materials (i.e. a nonwoven fabric of acrylic, polyamide, polyester or polypropylene fibers made by a spunlace process comprising fibers of at least 2 different deniers with a denier ratio from 7:1 to 11:1)

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which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of an electrostatic charge is imparted to the plural fibers when one of the plural fibers rubs against another one of the plural fibers having a different denier and the electrostatic charge is at least 1 Volt would obviously have been present once the Childs product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

Response to Arguments

5. Applicant's arguments filed May 7, 2004 have been fully considered but they are not persuasive.

In response to Applicant's Arguments that the Childs and the Pereira references do not relate to a cloth for dry cleaning, the Examiner respectfully argues the contrary. Childs teaches that the articles of his invention can be used for imparting the fabric treatment composition to fabric to provide, **BUT NOT LIMITED TO**, softening, and/or antistatic effects to fabric in an automatic laundry dryer (column 3, lines 54 – 60). Pereira teaches that the material can be used for a variety of disposable items such as cleansing fabrics (column 3, lines 49 – 54). It should be noted that has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Since both Childs and Pereira meets all physical and chemical limitations at least set forth in claim 23, it is asserted that when the fabric of Childs is in use, it would inherently develop an electrostatic charge of at least 1 Volt. If the electrostatic charge development is not inherent, it is asserted that

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Applicant's claims must be incomplete. In other words, if Applicant's asserts a lack of inherency in Childs and Pereira, then Applicant's claimed invention is missing an element that is critical to the invention, which would patentably distinguish it from Childs and Pereira.

In response to Applicant's Arguments that Childs and Pereira fail to disclose each and every element of the claimed invention, please review the rejections above in paragraphs 3 and 4.

6. Applicant's arguments with respect to the 35 U.S.C. 102(e)/103(a) rejection of claims 23 and 24 as being anticipated or obvious over Groten (US 5,970,583) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

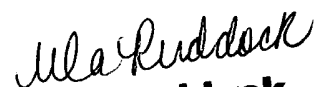
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer Boyd
August 4, 2004


Ula C. Ruddock
Primary Examiner
Tech Center 1700